PATIENT SAFETY
May 2004

1: Ann Fam Med. 2003 Nov-Dec;1(4):248-9.
Meeting on patient safety takes different tack: ambulatory care.
Lapp T.
Publication Types:
Congresses
News
PMID: 15055418 [PubMed]

2: Ann Surg. 2004 Apr;239(4):475-82.
Systems approaches to surgical quality and safety: from concept to measurement.
Vincent C, Moorthy K, Sarker SK, Chang A, Darzi AW.
Clinical Safety Research Unit, Imperial College of Science, Technology & Medicine, University of London, London, United Kingdom. c.vincent@imperial.ac.uk
OBJECTIVE: This approach provides the basis of our research program, which aims to expand operative assessment beyond patient factors and the technical skills of the surgeon; to extend assessment of surgical skills beyond bench models to the operating theater; to provide a basis for assessing interventions; and to provide a deeper understanding of surgical outcomes. SUMMARY BACKGROUND DATA:
Research into surgical outcomes has primarily focused on the role of patient pathophysiological risk factors and on the skills of the individual surgeon. However, this approach neglects a wide range of factors that have been found to be of important in achieving safe, high-quality performance in other high-risk environments. The outcome of surgery is also dependent on the quality of care received throughout the patient's stay in hospital and the performance of a considerable number of health professionals, all of whom are influenced by the environment in which they work. METHODS: Drawing on the wider literature on safety and quality in healthcare, and recent papers on surgery, this article argues for a much wider assessment of factors that may be relevant to surgical outcome. In particular, we suggest the development of an "operation profile" to capture all the salient features of a surgical operation, including such factors as equipment design and use, communication, team coordination, factors affecting individual performance, and the working environment. Methods of assessing such factors are outlined, and ethical issues and other potential concerns are discussed.
Publication Types:
Review
Review, Tutorial
PMID: 15024308 [PubMed]

3: Arch Intern Med. 2004 Mar 22;164(6):653-8.
Characteristics associated with physician discipline: a case-control study.
Kohatsu ND, Gould D, Ross LK, Fox PJ.
Medical Board of California, USA. neal-kohatsu@uiowa.edu
BACKGROUND: There has been increasing attention devoted to patient safety. However, the focus has been on system improvements rather than individual physician performance issues. The purpose of this study was to determine if there is an association between certain physician characteristics and the likelihood of medical board-imposed discipline. METHODS: Unmatched, case-control study of 890 physicians disciplined by the Medical Board of California between July 1, 1998, and June 30, 2001, compared with 2981 randomly selected, nondisciplined controls. Odds ratios (ORs) were calculated for physician discipline with respect to age, sex, board certification, international medical school education, and specialty. RESULTS: Male sex (OR, 2.76; P<.001), lack of board certification (OR, 2.22; P<.001), increasing age (OR, 1.64; P<.001), and international medical school education (OR, 1.36; P<.001) were associated with an elevated risk for disciplinary action that included license revocation, practice suspension, probation, and public reprimand. The following specialties had an increased risk for discipline compared with internal medicine: family practice (OR, 1.68; P =.002); general practice (OR, 1.97, P =.001); obstetrics and gynecology (OR, 2.25; P<.001); and psychiatry (OR, 1.87; P<.001). Physicians in pediatrics (OR, 0.62; P =.001) and radiology (OR, 0.36; P<.001) were less likely to receive discipline compared with those in internal medicine. CONCLUSION: Certain physician characteristics and medical specialties are associated with an increased likelihood of discipline.
PMID: 15037494 [PubMed]
4: Arch Ophthalmol. 2004 Apr;122(4):460-9.
The artificial silicon retina microchip for the treatment of vision loss from retinitis pigmentosa.
Chow AY, Chow VY, Packo KH, Pollack JS, Peyman GA, Schuchard R.
Optobionics Corporation, Naperville, Illinois, USA. alanykc@aol.com
OBJECTIVE: To determine the safety and efficacy of the artificial silicon retina (ASR) microchip implanted in the subretinal space to treat vision loss from retinitis pigmentosa. METHODS: The ASR microchip is a 2-mm-diameter silicon-based device that contains approximately 5000 microelectrode-tipped microphotodiodes and is powered by incident light. The right eyes of 6 patients with retinitis pigmentosa were implanted with the ASR microchip while the left eyes served as controls. Safety and visual function information was collected. RESULTS: During follow-up that ranged from 6 to 18 months, all ASRs functioned electrically. No patient showed signs of implant rejection, infection, inflammation, erosion, neovascularization, retinal detachment, or migration. Visual function improvements occurred in all patients and included unexpected improvements in retinal areas distant from the implant. MAIN OUTCOME MEASURES: Subjective improvements included improved perception of brightness, contrast, color, movement, shape, resolution, and visual field size. CONCLUSIONS: No significant safety-related adverse effects were observed. The observation of retinal visual improvement in areas far from the implant site suggests a possible generalized neurotrophic-type rescue effect on the damaged retina caused by the presence of the ASR. A larger clinical trial is indicated to further evaluate the safety and efficacy of a subretinally implanted ASR.
Publication Types:
Clinical Trial
PMID: 15078662 [PubMed]

5: Br J Surg. 2004 Apr;91(4):391-2.
Training and patient safety.

Thorpe P.
plpjt@hotmail.com
PMID: 15048735 [PubMed]

6: Can J Cardiovasc Nurs. 2004;14(1):3-4.
Patient safety--a recycled buzzword or a new approach?
Woodend K.
Publication Types:
Congresses
Editorial
PMID: 15022526 [PubMed]

7: Cancer Invest. 2004;22(1):132-7.
National Institutes of Health's Clinical Center sets new policy on use of herbal and other alternative supplements by patients enrolled in clinical trials.
Sparber A, Ford D, Kvochak PA.
National Institutes of Health's Clinical Center, Bethesda, MD 20892, USA.
The nationwide concern over the escalating use of herbal and other alternative dietary supplements is prompting a call for action in health care organizations. Not only is there mounting evidence to support a strong concern for patient safety, but the use of these products by people participating in biomedical research protocols has an added impact on the integrity of the research design and data gathering. These issues are of increasing concern to the National Institutes of Health's hospital for biomedical research, the Warren Grant Magnuson Clinical Center. Surveys completed in 2000 showed that 25-45% of Clinical Center patients reported taking herbal and other alternative dietary supplements. In 2001, the Clinical Center moved forward to develop and implement a policy to guide hospital staff in the management of patient use of herbal and alternative supplements. The policy established the requirement for all patients to be screened for supplement use upon admission or outpatient visit. Continued use of supplement products during hospitalization and/or outpatient enrollment on protocol require a physician's authorizing order. The implementation of this policy has increased awareness and provided an important step forward in protecting patient safety and preserving the scientific integrity of the research at the NIH's Clinical Center.
Publication Types:
Review
Review, Tutorial
PMID: 15069771 [PubMed]

8: CMAJ. 2004 Mar 16;170(6):965-70.
Comment in:
CMAJ. 2004 Mar 16;170(6):975-6.
Fellowship training, workload, fatigue and physical stress: a prospective observational study.
Parshuram CS, Dhanani S, Kirsh JA, Cox PN.
Department of Critical Care Medicine, Hospital for Sick Children, Tornto, ON.
chris@sickkids.ca
BACKGROUND: Fatigue in physician trainees may compromise patient safety and the well-being of the trainees and limit the educational opportunities provided by training programs. Anecdotal evidence suggests that the on-call workload and physical demands experienced by trainees are significant despite duty-hour regulation and support from nursing staff, other trainees and staff physicians.
METHODS: We measured the workload and the level of fatigue and physical stress of 11 senior fellows during 35 shifts in the critical care unit at the Hospital for Sick Children in Toronto. We determined number of rostered hours, number of

admissions and discharges, number and type of procedures, nurse:patient ratios and related measures of workload. Fellows self-reported the number of pages they received and the amount of time they slept. We estimated physical stress by using a commercially available pedometer to measure the distance walked, by using ambulatory electrocardiographic monitoring to determine arrhythmias and by determining urine specific gravity and ketone levels to estimate hydration. RESULTS: The number of rostered hours were within current Ontario guidelines. The mean shift duration was 25.5 hours (range 24-27 hours). The fellows worked on average 69 hours (range 55-106) per week. On average during a shift, the fellows received 41 pages, were on non-sleeping breaks for 1.2 hours, slept 1.9 hours and walked 6.3 km. Ketonuria was found in participants in 7 (21%) of the 33 shifts during which it was measured. Arrhythmia (1 atrial, 1 ventricular) or heart rate abnormalities occurred in all 6 participants. These fellows were the most senior in-house physician for a mean of 9.4 hours per shift and were responsible for performing invasive procedures in two-thirds of their shifts. INTERPRETATION: Established Canadian and proposed American guidelines expose trainees to significant on-call workload, physical stress and sleep deprivation.
PMID: 15023923 [PubMed]

9: Health Aff (Millwood). 2004 Mar-Apr;23(2):103-15.
What is driving hospitals' patient-safety efforts?
Devers KJ, Pham HH, Liu G.
Center for Studying Health System Change, Washington, DC, USA.
kjdevers@vcu.edu
The Institute of Medicine's report To Err Is Human described the alarming prevalence of medical errors and recommended a range of activities to improve patient safety. Three general mechanisms for stimulating hospitals to reduce medical errors are professionalism, regulation, and market forces. Although some believe that market forces are becoming more important, we found that a quasi-regulatory organization (the Joint Commission on Accreditation of Healthcare Organizations) has been the primary driver of hospitals' patient-safety initiatives. Professional and market initiatives have also facilitated improvement, but hospitals report that these have had less impact to date.
PMID: 15046135 [PubMed]

10: Hosp Peer Rev. 2004 Apr;29(4):suppl 1-2.
Patient Safety Alert. Beaumont makes patients partners in safety efforts.
[No authors listed]
PMID: 15069891 [PubMed]

11: Hosp Peer Rev. 2004 Mar;29(3):29-32.
Your next survey will be customized; get ready for JCAHO's priority focus.
[No authors listed]
PMID: 15015430 [PubMed]

12: J Healthc Qual. 2004 Mar-Apr;26(2):31-5.
Thomas M. Smith on Virginia Commonwealth University's Patient Safety Fellowship. Interview by Michelle Horvath and Pamela Scarrow.
Smith TM.
Publication Types:
Interview
PMID: 15060957 [PubMed]

13: J Healthc Qual. 2004 Mar-Apr;26(2):42-8; quiz 48-9.
Medical errors: excess hospital costs and lengths of stay.

Nordgren LD, Johnson T, Kirschbaum M, Peterson ML.
Health Care Improvement Resources Department, Allina Hospitals & Clinics, Roseville, MN, USA. leslie.nordgren@allina.com
To focus on effective patient safety strategies in an environment of intense competition for resources, a method of quantifying the effect of potential sources of medical errors was developed. This study assessed excess length of stay (LOS) and hospitalization costs associated with patients who experienced errors. The distribution of the errors occurring within the mean LOS experienced by others with the same diagnosis and severity was also examined. Patients with errors had longer stays and greater costs when compared to controls.
PMID: 15060959 [PubMed]

14: J Healthc Qual. 2004 Mar-Apr;26(2):6-12; quiz 12-3.
Patient safety: a case study in team building and interdisciplinary collaboration.
Horak BJ, Pauig J, Keidan B, Kerns J.
Health Systems Administration Programs, Georgetown University, School of Nursing and Health Studies, Washington, DC, USA. bjh28@georgetown.edu
This case report presents specific steps taken to address potential patient safety problems, particularly those regarding collaboration between nurses and house staff at The George Washington University Hospital. Issues affecting patient care (e.g., lack of communication and teamwork) were identified through interviews, focus groups, and observations. The actions taken were team-building meetings that included a sensitivity session; coaching with nursing managers; and ground rules for nurse and physician collaboration. This report also describes the agenda for the team-building meetings, results, and lessons learned for implementation at other sites.
PMID: 15060954 [PubMed]

15: J Nurs Care Qual. 2004 Apr-Jun;19(2):88-91.
National Patient Safety Goals guide safe care.
Harris J, Schmitt L.
University of Rochester Medical Center, Strong Memorial Hospital, Rochester, NY 14642, USA. Jan_Harris@urmc.rochester.edu
PMID: 15077823 [PubMed]

16: J Nurs Care Qual. 2004 Apr-Jun;19(2):85-7.
Interview by Marilyn H. Oermann with Suzanne Delbanco, PhD, executive director of The Leapfrog Group.
Delbanco S.
Publication Types:
Interview
PMID: 15077822 [PubMed]

17: J Nurs Care Qual. 2004 Apr-Jun;19(2):116-22.
Analysis of sharp-end, frontline human error: beyond throwing out "bad apples".
Kennedy D.
School of Nursing, University of Kansas, Kansas City, KS 66160, USA. dkennedy@kumc.edu
Sharp-end, frontline human error occurs close to the delivery of patient care. The purpose of this article is to examine the mechanism of human error and cognition, and to explore the antecedents, attributes, and consequences of frontline human error. Fallible decision-making and actions leading to patient injury are explicated in a case study. The discussion includes strategies for preventing patient injury by refining system flaws.
Publication Types:

Review
Review, Tutorial
PMID: 15077828 [PubMed]

18: Jt Comm Perspect. 2004 Mar;24(3):1, 3-5.
2004 national patient safety goals adapted for programs.
[No authors listed]
PMID: 15035232 [PubMed]

19: Lancet. 2004 Mar 27;363(9414):1061-7.
How can clinicians measure safety and quality in acute care?
Pronovost PJ, Nolan T, Zeger S, Miller M, Rubin H.
Department of Anesthesiology/Critical Care Medicine, Johns Hopkins University School of Medicine and Bloomberg School of Public Health, Baltimore, MD, USA. ppronovo@jhmi.edu
The demand for high quality care is increasing and warranted. Evidence suggests that the quality of care in hospitals can be improved. The greatest opportunity to improve outcomes for patients over the next quarter century will probably come not from discovering new treatments but from learning how to deliver existing effective therapies. To improve, caregivers need to know what to do, how they are doing, and be able to improve the processes of care. The ability to monitor performance, though challenging in healthcare, is essential to improving quality of care. We present a practical method to assess and learn from routine practice. Methods to evaluate performance from industrial engineering can be broadly applied to efforts to improve the quality of healthcare. One method that may help to provide caregivers frequent feedback is time series data--ie, results are graphically correlated with time. Broad use of these tools might lead to the necessary improvements in quality of care.
Publication Types:
Review
Review, Tutorial
PMID: 15051287 [PubMed]

20: Lancet. 2004 Mar 20;363(9413):970-7.
Challenges in the care of the acutely ill.
Bion JF, Heffner JE.
University Department of Anaesthesia and Intensive Care Medicine, Queen Elizabeth Hospital, Birmingham B15 2TH, UK. j.f.bion@bham.ac.uk
Health care providers, hospital administrators, and politicians face competing challenges to reduce clinical errors, control expenditure, increase access and throughput, and improve quality of care. The safe management of the acutely ill inpatient presents particular difficulties. In the first of five Lancet articles on this topic we discuss patients' safety in the acute hospital. We also present a framework in which responsibility for improvement and better integration of care can be considered at the level of patient, local environment, hospital, and health care system; and the other four papers in the series will examine in greater detail methods for measuring, monitoring, and improving inpatient safety.
Publication Types:
Case Reports
Review
Review, Academic
PMID: 15043966 [PubMed]

21: Mayo Clin Proc. 2004 Apr;79(4 Suppl):S25-32.
Safety and adverse effects of androgens: how to counsel patients.

Basaria S, Dobs AS.
Division of Endocrinology and Metabolism, Johns Hopkins University School of Medicine, 1830 E Monument St, Suite 333, Baltimore, MD 21287, USA.
Recently, interest has grown in the use of androgen replacement therapy for postmenopausal women. Androgen replacement in women improves libido, bone density, and body composition. The adverse effects, like hirsutism, are generally mild, and the safety profile of transdermal testosterone replacement is more favorable than that of other modes of androgen therapy. Further studies may help to determine the effect of lipid changes on cardiac outcomes. We believe that long-term studies are necessary to observe the potential effect of androgen replacement on cardiovascular mortality, breast and endometrial tissues, and mood and anger before this therapy can be used routinely in women.
Publication Types:
Review
Review, Tutorial
PMID: 15065635 [PubMed]

22: Mayo Clin Proc. 2004 Apr;79(4):571-2; author reply 575-7.
Comment on:
Mayo Clin Proc. 2003 Sep;78(9):1088-91.
Thiazolidinedione-associated congestive heart failure and pulmonary edema.
Mikhail NE, Wali S, Cope D.
Publication Types:
Comment
Letter
PMID: 15065626 [PubMed]

23: Med Care Res Rev. 2004 Mar;61(1):3-37.
A review of the literature examining linkages between organizational factors, medical errors, and patient safety.
Hoff T, Jameson L, Hannan E, Flink E.
University at Albany, State University of New York, NY, USA.
The potential role of organizational factors in enhanced patient safety and medical error prevention is highlighted in the systems approach advocated for by the Institute of Medicine and others. However, little is known about the extent to which these factors have been shown empirically to be associated with these favorable outcomes. The present study conducted an intensive review of the clinical and health services literatures in order to explore this issue. The results of this review support the general conclusion that there is little evidence for asserting the importance of any individual, group, or structural variable in error prevention or enhanced patient safety at the present time. Two major issues bearing on the development of future research in this area involve strengthening the theoretical foundations of organizational research on patient safety and overcoming definitional and observability problems associated with error-focused dependent variables.
Publication Types:
Review
Review, Tutorial
PMID: 15035855 [PubMed]

24: Neurology. 2004 Mar 23;62(6 Suppl 4):S18-21.
Apomorphine: North American clinical experience.
Stay M.
Movement Disorders Program, Duke University, Durham, North Carolina 27705, USA.
This manuscript reviews North American clinical trials examining subcutaneous

injection of apomorphine in Parkinson's disease (PD) patients, and the available, cumulative apomorphine safety data for the US. These data provide strong documentation concerning dosing range (2-6 mg/injection), dosing frequency (1-10 injections/day), therapeutic response, and duration and onset of benefit. The US pivotal trial for subcutaneously injected apomorphine demonstrated robust and statistically significant benefit from drug administration when compared to subjects receiving placebo. Interestingly, these changes closely mirrored the response to levodopa in the same population, as measured by Unified Parkinson's Disease Rating Scale and Webster Step Seconds, and suggests that apomorphine may have greater potency than other agonists. A study of subjects ranging from early to advanced disease, conducted at the NIH, demonstrated a decline in duration of response and increased time to response in the advanced group when compared to levodopa naive subjects, despite the observation that threshold and optimal response dosages did not differ. Pharmacodynamic responses from a single average-dosage administration of 4.2 mg apomorphine in several studies demonstrated a benefit as early as 7.5 minutes with a duration of benefit as long as 90 minutes. Serious adverse events occurred in 16% of the subjects in these studies with the most common adverse events including dyskinesias (21%), hallucinations (11%), and orthostatic hypotension (9%).
Publication Types:
Review
Review, Tutorial
PMID: 15037667 [PubMed]

25: Plast Reconstr Surg. 2004 Apr 15;113(5):1478-90; discussion 1491-5.
Practice advisory on liposuction.
Iverson RE, Lynch DJ; American Society of Plastic Surgeons Committee on Patient Safety.
The Plastic Surgery Center, Pleaston, CA 94566, USA.
COMMITTEE STATEMENT: At the 69th annual meeting of the American Society of Plastic Surgeons (ASPS) in October of 2000, the ASPS Board of Directors convened the Task Force on Patient Safety in Office-Based Surgery Facilities. The task force was assembled in the wake of several highly publicized patient deaths involving plastic surgery and increasing state legislative and regulatory activity of office-based surgery facilities. In response to the increased scrutiny of the office-based surgery setting, the task force produced two practice advisories: "Procedures in the Office-Based Surgery Setting" and "Patient Selection in the Office-Based Surgery Setting." Since the task force's inception, professional and public awareness of patient safety issues has continued to grow. This heightened interest resulted in an increased need for plastic surgeons to communicate their views on the topic. To meet this challenge, the task force evolved into the Committee on Patient Safety, allowing the committee to address topics affecting the safety and welfare of plastic surgery patients, regardless of the facility setting. The "Practice Advisory on Liposuction" is the first advisory developed since the committee was formed. It was a lengthy and painstaking process for the committee, which included representatives from related plastic surgery organizations as well as the American Society of Anesthesiologists (ASA). Committee members included Ronald E. Iverson, M.D., chair; Jeffery L. Apfelbaum, M.D., ASA representative; Bruce L. Cunningham, M.D., ASPS/Plastic Surgery Educational Foundation (PSEF) Joint Outcomes Task Force representative; Richard A. D'Amico, M.D., ASPS representative; Victor L. Lewis, Jr., M.D., ASPS Health Policy Analysis Committee representative; Dennis J. Lynch, M.D., ASPS representative; Noel B. McDevitt, M.D., ASPS Deep Vein Thrombosis Task Force representative; Michael F.

McGuire, M.D., The American Society for Aesthetic Plastic Surgery (ASAPS) representative; Louis Morales, Jr., M.D., American Society of Maxillofacial Surgeons representative; Calvin R. Peters, M.D., Florida Ad Hoc Commission on Patient Safety representative; Robert Singer, M.D., American Association for Accreditation of Ambulatory Surgery Facilities representative; Thomas Ray Stevenson, M.D., American College of Surgeons representative; Rebecca S. Twersky, M.D., ASA representative; Ronald H. Wender, M.D., ASA representative; and James A. Yates, ASAPS representative. The authors thank members of the committee for the insights they brought to this process. The final document represents their significant contributions to these efforts. They would also like to recognize DeLaine Schmitz and Pat Farrell of the ASPS staff for their work on and support of this project.
Publication Types:
Guideline
Practice Guideline
PMID: 15060366 [PubMed]

26: Surv Ophthalmol. 2004 Mar;49 Suppl 1:S45-52.
Two-year double-masked comparison of bimatoprost with timolol in patients with glaucoma or ocular hypertension.
Cohen JS, Gross RL, Cheetham JK, VanDenburgh AM, Bernstein P, Whitcup SM.
Cincinnati Eye Institute and University of Cincinnati, Cincinnati, Ohio 45242, USA.
The object of this study was to compare the long term efficacy and safety of bimatoprost with timolol in patients with glaucoma or ocular hypertension. In a 12-month extension of two identically designed 1-year, multicenter, randomized, double-masked clinical trials, patients were treated topically with bimatoprost 0.03% QD (n=167), bimatoprost 0.03% BID (n=131), or timolol 0.5% BID (n=81). Main outcome measures were IOP at 8 am and 10 am and safety parameters. Bimatoprost QD provided significantly greater mean reduction from baseline IOP than did timolol at both measurements at each study visit (P< or =.001). At 10 am (peak timolol effect) at month 24, the mean reduction from baseline IOP was 7.8 mm Hg with bimatoprost QD and 4.6 mm Hg with timolol (P<.001). Patients treated with bimatoprost QD also sustained significantly lower mean IOP than timolol-treated patients at every follow-up visit throughout the 2-year study period (P< or =.006). At 10 am at month 24, a significantly greater proportion of bimatoprost QD than timolol patients achieved target pressures of < or =13-18 mm Hg (P< or =.010). Bimatoprost sustained an excellent safety profile during the second year of treatment. Most adverse events were mild, and there were no reports of increased iris pigmentation, uveitis, or CME. The incidence of hyperemia was significantly higher with bimatoprost QD (13.8%) than with timolol (2.5%) (P=.006). Mean reduction from baseline IOP with bimatoprost BID was not significantly different from that with timolol at month 24 at 10 am (P=.474). We conclude that bimatoprost QD provides superior IOP lowering to timolol, and is safe and well tolerated over 24 months of treatment.
Publication Types:
Clinical Trial
Multicenter Study
Randomized Controlled Trial
PMID: 15016561 [PubMed]

27: Thorax. 2004 Apr;59(4):328-33.
Open lung biopsy in neonatal and paediatric patients referred for extracorporeal membrane oxygenation (ECMO).
Inwald D, Brown K, Gensini F, Malone M, Goldman A.
Portex Unit, Institute of Child Health, London WC1N 1EH, UK.

D.Inwald@ich.ucl.ac.uk
BACKGROUND: This study was undertaken to determine the usefulness, safety, and most appropriate timing of open lung biopsy in infants and children considered for and on extracorporeal membrane oxygenation (ECMO) for respiratory failure. METHODS: A retrospective review of children referred for consideration of and placed on ECMO in our institution in the period 1996-2002. RESULTS: 506 patients were referred, 15 (3%) of whom underwent antemortem open lung biopsy (eight neonatal, four paediatric, and three cardiac patients). In the neonatal group open lung biopsy contributed to clinical decision making in all patients. Four neonates had a fatal lung dysplasia (three alveolar capillary dysplasia and one surfactant protein B deficiency) and treatment was withdrawn. Of the other four neonates, two had pulmonary hypoplasia, one had pulmonary lymphangiectasia, and one had meconium aspiration with mild barotrauma. Treatment was continued in these four patients and two survived. In the paediatric group the biopsies were of clinical relevance in two infants with pertussis who had lung infarction on biopsy in whom treatment was withdrawn. In the other two paediatric patients the biopsies were equivocal, treatment was continued, but both patients died. In the cardiac group, who presented perioperatively with pulmonary hypertension, the biopsies excluded a fatal lung dysplasia and severe pulmonary vascular disease but all three infants died. One patient had non-fatal bleeding complications. CONCLUSION: Open lung biopsy is clinically most useful when performed to diagnose fatal lung dysplasias in neonates and to confirm the presence of viable lung tissue in patients with acute lung injury due to pertussis infection.
PMID: 15047954 [PubMed]